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ABSTRACT

This paper examines the government's role in financing human capital investments. It first examines why private investments in education, training, and other forms of human capital are likely to fall short of socially desirable levels. It then reviews past trends in public support for human resource investments. Finally, it discusses current fiscal constraints that inhibit new public spending on human capital programs and considers some innovative financing strategies that could ease these budgetary limits. Part 1 contains the following sections: (1) "The Rationale for Government Intervention"; (2) "Trends in Public Investment in Human Capital"; and (3) "Implications of Current Government Efforts to Promote Investment in People." Part 2 contains the following sections: (1) "The Conventional Budget Process: Human Resource Programs Are Vulnerable While the Federal Budget Crisis Persists"; (2) "Alternatives to Normal Budgeting: Creative Funding Schemes Proliferate"; and (3) "Investing the Social Security Surplus in Human Resources: An Earmarked Financing Plan That Would Serve Broad Public Goals." This investigation indicates that the nation faces an impasse in human resources policy as it enters the 1990s, and concludes that the problem is clearly financial. Two tables and five figures are included. A list of 62 references is also included. (JS)

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CHANGING DOMESTIC PRIORITIES

DISCUSSION PAPER

FINANCING HUMAN CAPITAL

Jason Juffras

and

Isabel V. Sawhill

September 1989

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Chapter in David W. Hornbeck and Lester M. Salamon, editors, Investing in People: An Economic Strategy for the Nineties, forthcoming.

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This paper is a product of the Changing Domestic Priorities project which has examined the shifts taking place in the nation's economic and social policies under the Reagan administration and is now focusing on the major domestic problems facing the nation over the coming decade. Funding for this paper was provided by The Ford Foundation and the John D. and Catherine T. MacArthur Foundation.

Opinions expressed are those of the authors and should not be attributed to The Urban Institute or its sponsors.

INTRODUCTION

As previous chapters in this book have shown, the resources embodied in people will be crucial to the nation's ability to meet the challenges of the future. We need workers with the knowledge and adaptability to drive the growth of an economy increasingly dependent on information and problem-solving rather than land and capital. We also need citizens who have the basic skills and judgment to act competently as parents, as members of communities, and as participants in the political process. In short, investments in human capital--defined here as spending on education, training, health care, and other activities that enhance individuals' skills and capacities--are vital to public welfare.[1]

The public in recent years has increasingly recognized the importance of human resource investments. The most prominent example of this concern is the education reform movement that gathered momentum during the 1980s, leading state legislatures to increase teacher salaries, raise graduation standards, and mandate basic skills testing. Other human resource issues like training for welfare recipients and child health care have commanded public attention as well, resulting in new policies. Yet if we are to continue transforming a growing national consensus for more human capital investment into policy, the nation will need to commit sufficient money to the task.

Recent federal policy debates illustrate how fiscal constraints limit the development of effective human resource policies. For example, the 1988 Family Support Act was widely hailed as landmark legislation that would restructure the public assistance system to educate and train welfare recipients. But the funding was insufficient to enroll more than a small percentage of recipients

in such programs, even though they have generally been found to be cost-effective (Gueron, 1986: 19). Many policymakers also agree that prenatal, infant, and child health care represent sound investments, but the federal government has broadened Medicaid coverage for pregnant women and children only incrementally in recent years because of the high costs involved. Finally, evidence that preschool education greatly benefits poor children has convinced many observers that the federal Head Start program, which serves 1 of every 5 eligible children, should be expanded. However, as Congress reviewed legislation late in the 1980s to increase Head Start funding, lawmakers from both political parties agreed that the federal budget deficit permitted only a modest addition.

These examples suggest that the nation is currently unable to fund human capital investments at a level that reflects their importance to the economic and social health of the nation. To confront this problem, we must examine the government's role in financing human capital investments. Accordingly, this chapter first examines why private investments in education, training, and other forms of human capital are likely to fall short of socially desirable levels. It then reviews past trends in public support for human resource investments. Finally, and most importantly, it discusses current fiscal constraints that inhibit new public spending on human capital programs--especially at the federal level--and considers some innovative financing strategies that could ease these budgetary limits.

PART 1: GOVERNMENT INTERVENTION IN HUMAN CAPITAL MARKETS: RATIONALE, TRENDS, AND IMPLICATIONS

A. The Rationale for Government Intervention

Economic theory postulates that under certain conditions, the independent actions of consumers and producers seeking to maximize their welfare will yield socially desirable outcomes. But in human capital markets, these conditions are not met. Rather, there are a number of well-known arguments for public intervention to improve the functioning of the market.

First, society as a whole gains from having an educated citizenry for reasons beyond the private benefits that education brings. Educated people make better consumers, parents, voters, and members of their communities. Second, the mobility of labor leads to underinvestment in training. Firms may underinvest in training because they fear that employees will leave, preventing the firm from reaping the full benefit of any investment. At the same time, individuals will be reluctant to pay fully for training that will not be useful in another job. Thus, both the employer and the worker will tend to devote insufficient sums to training because the distribution of its benefits is uncertain.

Another impediment to the functioning of human capital markets is the availability of credit. Credit markets for human capital investment are not well developed, partly because the loans are not used to purchase tangible assets that can serve as collateral.[2] Even if credit or other sources of money are available, education and training involve a considerable amount of risk that discourages such investments. For example, it is difficult for an

individual to predict the value of education since its benefits will accrue over a long period while the economy and society changes.

Finally, there is the problem of imperfect information. People may not know which skills to invest in, or who provides the best education and other instruction (Bendick and Egan, 1982: 38-41).

These imperfections, or inefficiencies, in the functioning of free markets for human capital create a rationale for government intervention to ensure that society realizes the full benefits of investments in people. Beside this economic justification for government to promote human resource investments, a concern for equity has long motivated government policy in this area. In a society committed to equal opportunity, public investments in human capital are viewed as a way of compensating for the fact that children from different socioeconomic backgrounds do not start out with equal life chances.

These efficiency and equity arguments for public investment in human resources may be even more powerful as the United States enters the 1990s, as noted earlier in this volume. As the growth of the nation's labor force slows to 1 percent annually during the 1990s and the skill requirements of jobs continue to rise, (Johnston and Packer, 1987: xix, 97-101), economic growth will depend more critically on people's abilities and productivity. The globalization of markets for goods and the increased mobility of capital only reinforces the importance of the resources embodied in people. While investments in human capital will be important to the economy on a broad scale, they will also be important to ensure that disadvantaged groups, such as the nation's 13 million poor children or the growing numbers of people living in

troubled inner-city neighborhoods,[3] can contribute to society and share in its opportunities.

B. Trends in Public Investment in Human Capital

Government in the United States has long accepted responsibility to help develop the capacities of people. This commitment is expressed most powerfully in the case of education. During the 1985-86 school year, federal, state, and local governments poured $196 billion into education, a sum which amounted to 73 percent of total education expenditures during that period.[4] The public sector also makes a much smaller but still important investment in job training, mostly through the federal Job Training Partnership Act (JTPA). Outlays for JTPA, which are projected to be $3.8 billion during fiscal year 1989, supplement private training expenditures of a far greater magnitude. The American Society for Training and Development has estimated that training provided by businesses through formal programs costs $30 billion annually, while the informal training provided on the job represents an investment of $180 billion yearly.

While the public commitment to human capital investment is substantial, we need to assess whether it is growing or declining as background for our discussion of financing strategies later in this chapter. We use public investment in education and training at all levels of government as our measure of human capital investment because these are the categories of government spending with the most direct impact on productivity. While other public

programs do affect people's skills and knowledge, the investment component of these programs is difficult to isolate.[5]

The federal role: A commitment to investments in the disadvantaged wanes during the 1980s. The federal government has a long history of commitments to human capital investments for broad segments of the population. Some of the most prominent threads in this pattern are the 1862 Morrill Land Grant College Act encouraging the creation of agricultural and mechanical colleges; the G.I. Bill of 1944 providing educational vouchers to World War II veterans; and the National Defense Education Act of 1958 promoting the study of science and engineering.

With the advent of President Johnson's War on Poverty in 1964, the federal government assumed responsibility for a new national commitment to invest in the skills of the disadvantaged. Using data provided by Burtless (1986: 35), we estimate that three-quarters of total federal human capital spending between 1963 and 1985 was targeted at poor people.[6] From an intergovernmental perspective, it can be argued that this targeting of federal human capital programs on the disadvantaged is logical; because states and localities must compete to attract or retain businesses and middle-class families, they have an incentive to keep taxes low and may neglect certain needs, including those of the disadvantaged.

Human capital programs like Head Start, Job Corps, and Pell Grants for college students became the centerpiece of Johnson's War on Poverty because they reflected the popular view that programs for the poor should help them to become self-sufficient. During this period, human capital expenditures grew rapidly from a very small base, more than tripling in real terms between 1965 and 1968. During the early 1970s, the expansion of human capital programs

slowed due to stagflation and disillusionment with some of the programs, but strong growth resumed again during the mid- to late 1970s (see Figure 1).

During the 1980s, the almost continuous growth of federal human capital spending was reversed, as President Reagan secured a 21 percent real cut in outlays for human resource programs in the Omnibus Budget Reconciliation Act of 1981. Job training programs for the disadvantaged suffered the sharpest cuts; funding declined from $7.4 billion in 1981 to $4.3 billion in 1989 (1982 dollars) or by 42 percent as the Comprehensive Employment and Training Act was replaced by the smaller JTPA.[7] After the initial cuts in 1981, however, Congress protected most education and training programs from further reductions, leaving estimated expenditures on human capital programs for 1989 equal in real terms to those of 1982. Large federal budget deficits have perpetuated this stalemate in spending throughout the 1980s.

While federal spending on education and training dipped by 21 percent in real dollars between 1981 and 1989, federal human capital investments declined even more steeply as a percentage of GNP; the drop in this ratio was 39 percent between 1981 and 1988.[8] Human capital also represents a declining share of federal expenditures, down from 3.6 percent of total outlays in 1981 to 2.3 percent in 1989. Finally, as shown in Figure 2, human capital outlays have been shrinking substantially in recent years as portions of the nation's social welfare spending (health care; income maintenance; education; employment, training, and social services; and veterans' benefits and services) and total investment spending (the sum of the nation's investment in physical capital, including national defense; research and development; and education and training).

Figure 1:
Federal Investment in Human Capital, 1962-1989

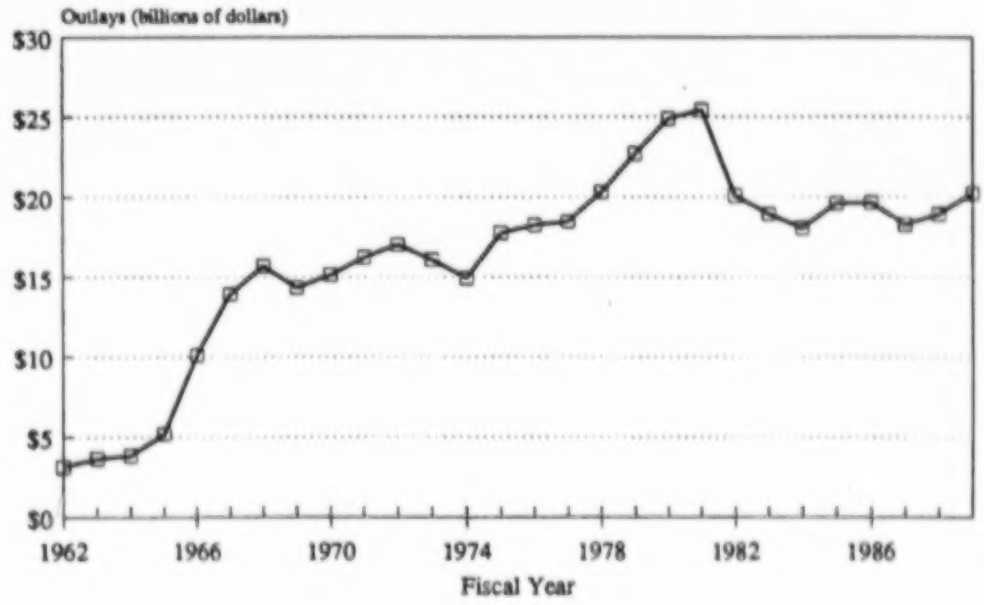
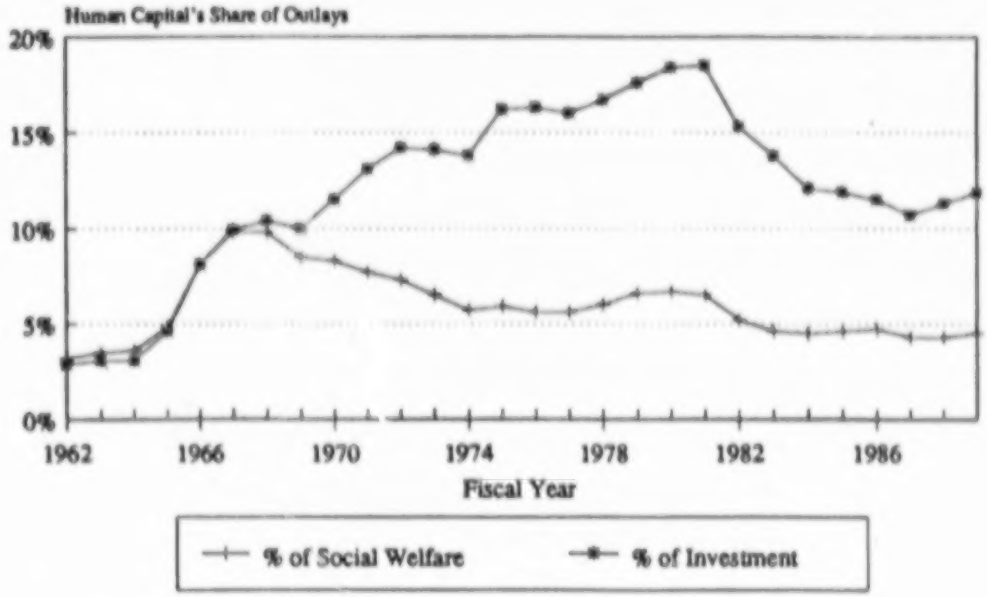


Figure 2:
Human Capital's Share of Federal Social Welfare and Investment Spending, 1962-89



The State and Local Role: Steady Growth in Investment in Education. During the 1980s, state and local governments assumed a more visible role in domestic policy, undertaking aggressive and innovative policies in economic development, education, and health care. The federal government was partly responsible for this shift, as its large budget deficits and cutbacks in aid to state and local government encouraged the lower levels of government to rely more on their own resources. Motivated as well by concerns about economic growth and international competitiveness, state and local governments channeled much of their energy and initiative into human capital programs, raising teachers' salaries, tightening graduation standards, and beginning dropout prevention programs. Promising initiatives were also numerous in prenatal care, parenting education, and drug abuse prevention.[9]

While the state and local governments have clearly served as sources of ideas and innovations in domestic policy during the 1980s, their roles in financing human capital are characterized more by continuity than by change. State and local governments bear primary responsibility for administering and financing education. As shown in Table 1, state and local governments provided 64 percent of education funding during 1985-86, reflecting a contribution of $105 billion by state governments and $68 billion by local governments (National Center for Education Statistics, 1988: 31). These sums represent almost all of state and local governments' investment in human capital, as well as the largest categorical share of state and local expenditures. State and local governments continue to provide the bulk of support (85 percent in 1985-86) for elementary and secondary education, while a majority of higher education funds (55 percent in 1985-86) comes from private sources (National Center for Education Statistics, 1988: 31).

TABLE 1

EDUCATION EXPENDITURES 1985-86
BY SOURCE OF FUNDS AND LEVEL OF EDUCATION
(in billions of dollars)

Source	Elementary and Secondary	Higher	Total
Federal	9.9	13.6	23.5 (8.7%)
State	73.2	32.2	105.4 (39.1%)
Local	65.0	2.7	67.8 (25.1%)
Private	13.6	59.1	72.8 (27.0%)
Total	161.8	107.7	269.5

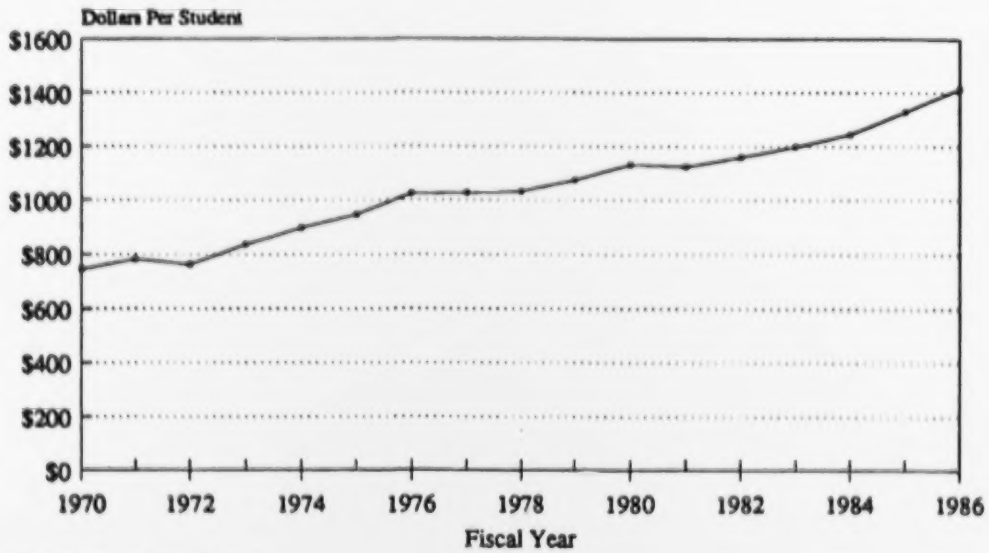
SOURCE: National Center for Education Statistics, Digest of Education Statistics, 1988.

Overall, state and local governments steadily increased their investment in education between 1970 and 1986 from $108 billion to $151 billion (in 1982 dollars, as are all of the following figures in this section), a 40 percent increase.[10] But these aggregates hide as much as they tell, as financing trends differed between state and local governments and between elementary and secondary education and higher education. Furthermore, the raw figures on education spending between 1970 and 1986 are deceptive because school enrollments were changing markedly.

Total spending for education by the states grew by a healthy 72 percent between 1970 and 1986, rising from $53.5 billion to $91.8 billion. The increase in state funding was largest at the elementary and secondary level, where real expenditures rose while the school population shrunk by 12 percent.[11] The result was a 90 percent increase in state spending per elementary and secondary school student during the 1970-1986 period (see Figure 3). Meanwhile, state dollars for higher education also increased sharply, but the university population grew rapidly as well (by 32 percent), so that state funding per student between 1970 and 1986 grew by only 31 percent (see Figure 4).[12]

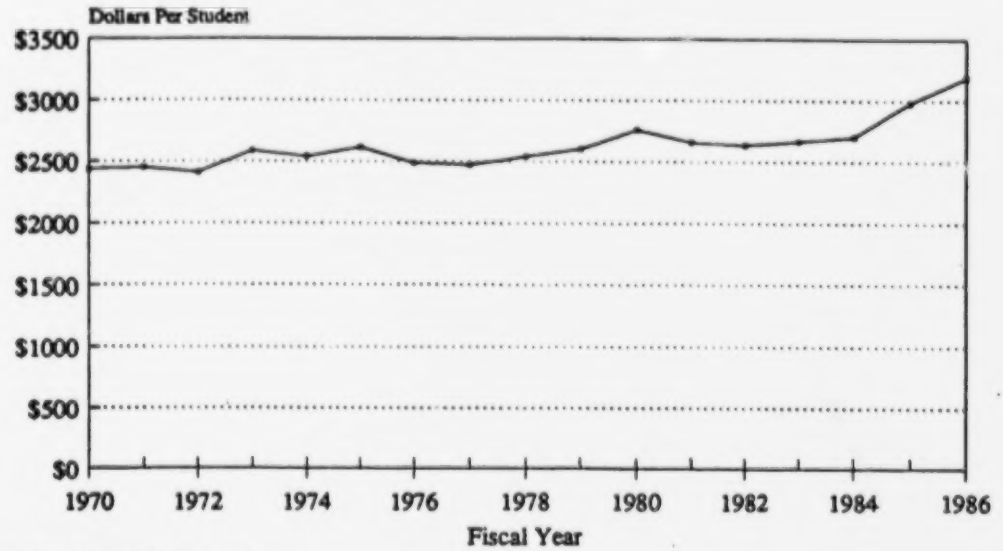
Between 1970 and 1986, total education spending by local governments grew from $52.3 billion to $56.6 billion, or by 9 percent, far smaller than the gains made by the states. Yet the local contribution, which goes almost entirely (96 percent) to elementary and secondary education, increased by a more solid 23 percent on a per student basis during this period because of the enrollment decline mentioned above (see Figure 5). While state spending for elementary and secondary education grew much more quickly than local spending between 1970 and 1986, some of this differential can be explained by education

Figure 3:
State Spending on Elementary and Secondary Education, 1970-1986



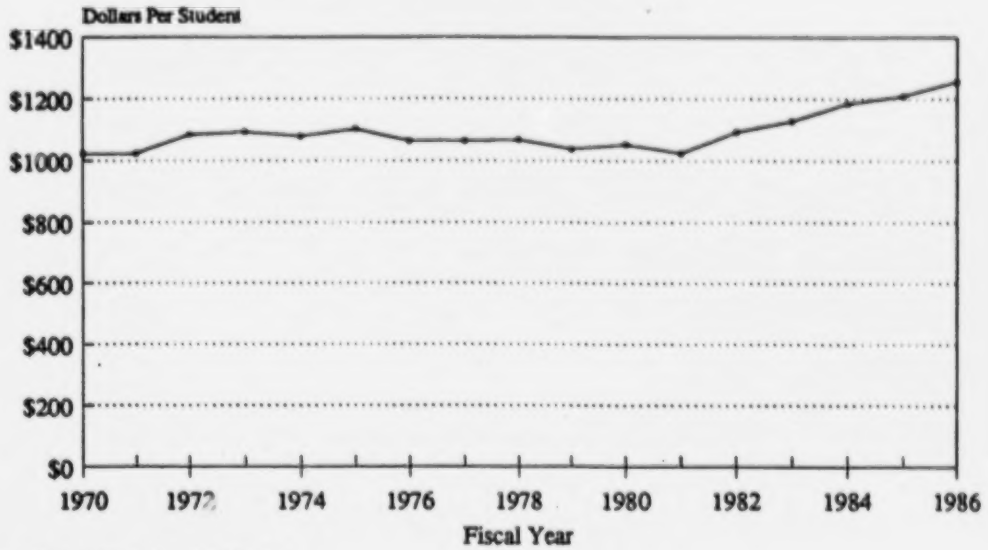
Data calculated using information from the National Center for Education Statistics, various years.

Figure 4:
State Spending on Higher Education, 1970-1986



Data calculated using information from the National Center for Education Statistics, various years.

Figure 5:
Local Spending on Elementary and Secondary Education, 1970-1986



Data calculated using information from the National Center for Education Statistics, various years.

reform plans that shift fiscal authority to state governments so that education money is distributed more evenly among local districts.

Overall, these patterns reflect a healthy growth in real spending for education between 1970 and 1986, particularly at the elementary and secondary level. Combined state and local investment in education per student has increased by 51 percent in elementary and secondary education during that time period and by 13 percent for higher education. However, the trends are positive only in absolute, not in relative terms. Between 1970 and 1986, state and local education spending dropped slightly from 4.4 percent of GNP to 4.1 percent.[13] Gold (1989: 18-19) has likewise found that state spending for education was slightly lower as a percentage of personal income in 1987 than in 1976, reflecting the fact that other items like Medicaid and corrections have absorbed larger shares of state resources. Education also declined from 40 percent of state and local general expenditures in 1970 to 35 percent in 1986.[14] Similarly, education has declined as a share of state and local social welfare outlays from 66 percent in 1970 to 55 percent in 1986.[15]

State and local governments have also become more involved in other forms of human capital development besides elementary, secondary, and higher education—with job training, education and training programs for welfare recipients (hereafter called "work/welfare initiatives"), and preschool education being among the most notable examples. However, the limited data available suggests that most of these new efforts are small, showcase programs. Innovative programs are numerous, but most state and local governments do not have the interest or the resources to mount intensive human resource programs in these areas.

In job training, for example, federal activity dwarfs that of the state and local governments. While these lower levels of government spent $5.2 billion on labor training and services in 1986 (Peters, 1988: 23-25), the bulk of the money came in the form of grants from the federal government (Office of Management and Budget, 1989a: 284). While at least 44 states have job training programs--many of which were initiated during the 1980s--these are mostly pilot programs with funding ranging between $45,000 and $12 million (Ganzglass and Heidkamp, 1987: iii).

State work/welfare and preschool education programs show a similar pattern. Work/welfare initiatives have proliferated; by 1986, 25 states operated programs providing a full array of education, training, and supportive services (Nightingale and Burbridge, 1987: 74). However, the programs are often quite small; in 1986, only 4 states were offering comprehensive services to a large portion of the welfare population (Nightingale and Burbridge, 1987: 93). The states provided only $67 million for work/welfare initiatives in 1985 (General Accounting Office, 1987: 40), compared to a $195 million contribution from the federal government (however, state spending has increased significantly since 1985, as large work/welfare programs have been started in states like California and New Jersey). Similarly, preschool education programs expanded from 8 states in 1980 to 26 in 1987, but a recent survey showed that the classes included only 140,000 students in 1988 at a cost to the states approaching $200 million (Marx and Seligson, 1988: 18-21). The federal Head Start preschool program is much larger, serving about 450,000 children yearly at a cost of $1.2 billion in 1989.[16]

On the whole, while state and local governments have increased their investments in education, they appear to be facing too many other pressing

responsibilities to expand their human capital investments much into other areas. The job training, work/welfare, and preschool education programs run by state governments are promising prototypes, but the widespread replication of these ventures remains uncertain.

C. Implications of Current Government Efforts to Promote Investment in People

This chapter and the other articles in this book have argued that human capital investments are particularly critical to the modern economy and society. Nevertheless, public investments in people have not risen substantially to meet this growing need. Federal human capital investments have fallen by 21 percent in real terms since fiscal year 1981; this decline is even sharper when human capital investment is measured against GNP. The trend in human resource investment at the state and local level is much brighter, as state and local spending for education rose in real dollars by a combined 40 percent between 1970 and 1986. Nevertheless, these sectors of government now spend less on education as a percentage of GNP than they did in 1975, when that ratio began falling from its most recent high. If one were to use these peak years in human capital spending for the federal, state, and local governments as a percentage of GNP as a benchmark for what the nation should be spending today—under the premise that human capital investments in the 1990s should be at a high point given their increasing importance—government would have to increase its investments in human capital by some $33 billion annually. This increase would augment total government investment in human capital, which stood at $195 billion in 1986 (the last year for which complete figures are available), by more than 15 percent.

Would increased federal, state, and local investments in human capital of this magnitude really benefit society? There are strong reasons to believe that human capital investments are important, particularly as we shift toward an economy based upon information and communication. Nevertheless, we have proceeded largely on faith thus far in assuming that investments in people are good for society and the economy. There is considerable evidence that human capital investments are worthwhile to individuals—the economic return from education has widely been found to range from 5 to 15 percent, for example, a figure which does not incorporate the social benefits of education. But the aggregate impact of the investment is less clear. The individual may reap economic gains from education because he or she has a credential that leads employers to expect better performance on the job, even if the skills gained are of limited value and contribute little to the output of the economy. Likewise, while many public programs to build human capital—Job Corps, preschool education, and work/welfare initiatives, for example—have been found to be cost-effective,[17] others have either not been evaluated or have been found to be ineffective.

It is beyond the scope of this chapter to assess the quality and effectiveness of the variety of different forms of human capital investments undertaken by government. The authors are under no illusion that increased spending on schools, training programs, or other forms of human capital will always translate into higher productivity or improvements in social welfare. Nevertheless, we assume that additional investment in people's skills and capacities could significantly benefit society if the money is devoted to the most effective programs. Keeping this important caveat in mind, we focus now on alternative ways of financing new spending in this area.

PART 2: FINANCING STRATEGIES FOR HUMAN CAPITAL INVESTMENTS

In the first part of this chapter, we argued that private markets underinvest in human capital and that public spending has not kept pace with the need to equip people with the education and skills needed to meet the economic and social challenges of the future. Many researchers have stressed these ideas and outlined their implications (see for example Litan, Lawrence, and Schulze, 1988; Thurow, 1985; Committee for Economic Development, 1987; or Secretary of Labor's Commission on Workforce Quality and Labor Market Efficiency, 1989)). But these arguments may have no more than academic significance should current fiscal constraints continue to limit new spending initiatives. This section addresses the financing problem.

We begin with a discussion of why funding new human capital initiatives through conventional budgetary procedures—the most desirable approach in principle—is unlikely to yield significant new resources for such investments in practice. We then consider alternative financing mechanisms, including: (1) earmarked taxes, (2) mandated private sector spending; and (3) greater state and local financing. These options deserve scrutiny because current federal budgetary pressures are likely to compel legislators and program advocates to consider them. While each of these alternatives may be of some use in supporting human capital investments, each poses significant problems as well. The challenge for policymakers wishing to increase national investments in people is to identify the situations in which each financing tool can best be employed, and to determine how their combined use can contribute to an effective national human resources policy. Finally, we examine another

alternative financing mechanism—tapping some of the growing Social Security surpluses for human resource investments—and explain how this option could help solve the funding dilemma hindering human capital programs.

A. The Conventional Budget Process: Human Resource Programs Are Vulnerable While the Federal Budget Crisis Persists

The nation could choose to pay for more human capital investments simply by committing additional federal, state, and local money to education, training, and similar activities during yearly budget reviews. Such additions to human capital spending could be in the form of direct outlays or tax subsidies. This conventional method of budgeting, in which legislators distribute general revenues (or tax preferences) across a wide range of programs, is arguably the most economically efficient and equitable financing mechanism because it is relatively flexible and comprehensive. As priorities change, lawmakers can redirect money to meet the new needs. Of course, political stalemates and the lobbying of special interest groups can paralyze the conventional budget process, as they have at the federal level throughout the 1980s. But such disputes can stall any budgetary system. Overall, the conventional budget process is still preferable to other financing mechanisms--such as raising revenue on a program-by-program basis--because it encourages lawmakers to consider the whole range of public needs and decide which ones represent the best uses of tax dollars.

Despite the merits of funding programs through the unified budget process, this financing mechanism is likely to yield money for human capital investments only at the state and local levels over the next five years. As is well known, the federal government has persistently run large budget deficits throughout most of the 1980s, reaching a postwar high in 1983 as a percentage of GNP

before declining to less alarming levels later in the decade. Because federal budgeting involves only one government, instead of the 50 states and some 80,000 local governments, we shall focus in this section on conventional budgeting at the national level and return to the role of state and local governments in financing human capital investments later in the chapter.

Many economists have persuasively outlined the dangers of federal deficits (see for example Gramlich in Mills and Palmer, 1984 or Minarik and Penner in Sawhill, 1988), so there is little need for us to repeat those analyses or describe the constraints the deficit has imposed on spending in numerous areas. The critical point is that deficits will probably remain stubbornly high, limiting any new initiatives in the human capital area. The Congressional Budget Office (CBO) predicted in 1989 that the annual deficit would exceed $125 billion at least until 1994 under current policies (Congressional Budget Office, 1989: xi). The shortfalls exceed $250 billion annually during the same period if the Social Security and other trust fund surpluses are excluded from the totals (Congressional Budget Office, 1989: 51). While the President and Congress may cut these deficits to comply with the Gramm-Rudman-Hollings deficit targets requiring a balanced budget by 1993, many lawmakers appear unwilling to accept the tax increases or cuts in entitlement programs needed to reduce the deficit significantly.

Because many items in the federal government are difficult to cut for political or statutory reasons, domestic discretionary programs--including human capital programs--have borne a disproportionate share of budget cuts in the 1980s, dipping from 27 percent of total outlays in 1981 to 16 percent in 1988.[18] These programs remain vulnerable in the 1990s. Federal entitlement programs like Social Security, in which benefits are guaranteed to all people

meeting certain criteria, do not require yearly appropriations. Outlays for entitlements have grown rapidly since the mid-1960s, leaving less room in the budget for other needs. Other budgetary commitments, like those for military weaponry that is already in the pipeline, or interest payments on the national debt, are similarly difficult to cut. Such factors have increased the share of expenditures classified by the Office of Management and Budget as "relatively uncontrollable" to 76 percent in 1989. With the federal budget carved into so many slices reserved for different purposes and constituencies, there will be little left over for such human resource investments as education, training, and preventive health care.

Because advocates of greater spending on human capital programs are unlikely to secure additional federal outlays, some may seek to accomplish the same objective through new tax subsidies. Although legislators stripped away many tax preferences in the Tax Reform Act of 1986, reducing estimated tax expenditures by more than $225 billion in fiscal year 1991 (Congressional Budget Office, 1988: ix-x), these foregone revenues are still projected to amount to $333 billion during that same year (Joint Committee on Taxation, 1989: 19)—some 28 percent of projected outlays. President Bush has proposed new or extended subsidies for child care, enterprise zones, oil and gas depletion allowances, and research and development, emphasizing that tax subsidies preserve private market incentives and avoid the creation of new government bureaucracies. Nevertheless, the deficit constrains tax subsidies as well as direct outlays, for both compound the nation's budget problems. In addition, many members of Congress who invested so much energy in achieving the compromises of the Tax Reform Act of 1986 have said that they do not want to allow tax preferences to proliferate again, narrowing the tax base.

Until the federal government reduces its budget deficit significantly, the only feasible way to increase human capital investments through the regular budget process may be through small increases in education, training, and preventive health care programs that are part of larger deficit reduction packages. Policymakers might be able to justify small increments to human capital spending—no greater than several billion dollars—by arguing that such investments are as important to increased productivity and economic growth over the next 10 years as shrinking the deficit.

B. Alternatives to Normal Budgeting: Creative Funding Schemes Proliferate

As federal deficits mounted during the 1980s and popular opposition to increased taxation remained high at all levels of government, policymakers have searched for other ways to fund programs.

Option 1: Earmarked financing. One alternative lawmakers have increasingly employed is earmarking revenues—that is, requiring by law that all or part of the revenues from a particular tax serve a given purpose or program. Earmarked revenues have been useful because they allow legislators to expand programs that taxpayers are willing to support without requiring an increase in deficits or in across-the-board taxes. Furthermore, earmarked taxes may provide something like a market test for new or expanded programs because beneficiaries are asked to pay the costs. Earmarked or dedicated taxes have been used to fund the federal Medicare Catastrophic Care Act of 1988 (financed through an addition to the monthly Medicare premium as well as a supplemental premium tied to income), education reforms in South Carolina,

Mississippi, Indiana, Arkansas, and Tennessee, and economic development, housing, and infrastructure programs in many cities and towns.

Earmarked taxes come in many varieties. They differ in purpose and in scope. At the state level, for example, motor fuels, motor vehicle registration, sales, tobacco, and alcoholic beverage taxes are frequently earmarked (Gold, Erickson, and Kissell, 1987: vii). Earmarked tax burdens may be widely shared (as in the payroll taxes used to finance Social Security) or imposed on one group (as when companies that dump pollutants are taxed to finance environmental protection). Because earmarked funding plans can differ so widely, we will examine their merits in financing human capital investments using three examples: (1) a plan to dedicate part of the Unemployment Insurance (UI) payroll tax to create individual training accounts, (2) an idea to restructure the higher education financing system by making repayment of student loans contingent upon income, and (3) a proposal to create a "Children's Trust Fund" by increasing the payroll tax and reserving the proceeds for children's programs. The analysis of these three schemes will illustrate some of the most important ways in which one can design an earmarked tax.

Earmarking Unemployment Insurance Funds for Training. This plan would require workers and businesses to set aside a portion of unemployment insurance payroll taxes to create individual training accounts (ITAs) for workers. Although the parameters may vary, most of the ITA proposals follow the same basic structure (see for example, Congressional Budget Office, 1985: 65-68 or Choate, 1982: 42-45). Under one prototype, employers and employees would each pay eight-tenths of one percent of a worker's wage up to a combined total of $500 annually. Collections would continue until an employee had an ITA of

$4,000 through these contributions and the accumulation of tax-free interest. The money could be withdrawn for training purposes deemed allowable by law or regulation.

This idea has obvious merit. The training financed by ITAs could reduce unemployment as well as contribute to skill development throughout the economy and throughout a worker's career, enabling people to assume new responsibilities or prepare for new jobs. ITAs would greatly increase job training funds and provide a stable revenue base for skill development in the future. The CBO has estimated that a typical ITA proposal would generate $25 to $30 billion annually in job training funds (Congressional Budget Office, 1985: 66), far greater than current federal training expenditures approaching $4 billion annually.

Nevertheless, the ITA concept has its flaws. Like many earmarked financing plans, the ITA would be a somewhat blunt, inflexible tool. It would be difficult for lawmakers to reallocate the earmarked money for ITAs if priorities changed. Ironically, the earmarking of UI payroll taxes to develop ITAs might encourage saving more than training because individuals would retain control over the use of the funds. Furthermore, by placing training decisions solely in the hands of workers, ITAs might fail to spur training in the fields most essential to industry or the economy.

This training tax also raises distributional and efficiency concerns. Like most payroll taxes, this increase in the unemployment insurance tax would be regressive since it would be capped at a certain level of income ($31,250 under one plan). The ITA plan would also fail to promote training among people unemployed, not in the labor force, or not working in covered employment, and would provide fewer immediate benefits for low-wage than for high-wage workers.

Finally, this increase in the UI tax would fuel inflationary pressures if employers tried to shift costs to consumers and would reduce employee compensation if it were shifted to workers.

California and Delaware have both implemented less ambitious and more flexible versions of these training tax plans that correct some of the deficiencies described above. California dedicates .1 percent of its UI funds and Delaware imposes a .1 percent UI tax on employers to provide a range of training services, including customized training for businesses, retraining for dislocated workers, and skills instruction for the disadvantaged. These plans seem better designed to promote training where it is most needed because the money can be allocated to different types of training; however, the funding is modest (about $55 million annually in California and $2 million in Delaware) and may have little impact on the level of training if legislators provide less for job training from the states' general funds.

Another way to generate more resources for job training would be to index the federal wage base for the UI tax, which currently stands at $7,000 and serves as the minimum base for the state UI taxes, and reserve the additional revenues for training. Indexing the wage base by annual wage increases in the economy could generate more than $4 billion during the first 4 years after the plan was implemented (Congressional Budget Office, 1985: 54-55). In addition, gradually raising the UI wage base would be desirable on equity grounds alone since the current tax is highly regressive.

Income-Contingent Loans for Higher Education. This earmarked tax proposal would restructure the nation's system for financing higher education. The federal government would guarantee loans to all student borrowers. But instead of repaying the loans over a given period at a fixed interest rate, students

would pay back a fixed portion of their income throughout their careers in the form of an increment to their payroll taxes. Under a version of this plan developed by economist Robert Reischauer, students would pay back .24 percent of their income for every $1,000 they had borrowed (Reischauer, 1987: 19). Therefore, a student with $10,000 in student loan debt and an annual income of $20,000 would have to pay 2.4 percent of his or her income, or $480, per year. This plan inverts the social insurance model described earlier--granting benefits first and requiring payments later--and would deliver a subsidy from people with higher incomes to those with lower incomes. An adult with an annual income of $30,000, for example, would repay more of his loan than someone with an annual income of $20,000 and the same amount of student loan debt. As a whole, the student loan program would become self-financing because the tax rate would be set to equalize loans and repayments over time.

This financing strategy would have several advantages. All students could use these loans to help them meet the mounting costs of college education, which have risen far faster than inflation since the mid-1960s.[19] Furthermore, unlike the ITA plan discussed above, the burden imposed by the additional payroll tax would be progressive. This feature would also relieve pressures upon students to take high-paying jobs instead of less lucrative employment that may be more socially valuable. At the same time, the income-contingent loan system would also reduce budget costs because it would be self-financing. Taxpayers would no longer have to pay the subsidies embodied in GSLs or pay default costs.

The merits of this financing plan hinge on a number of philosophical and practical questions. One issue is who should bear what share of the tax burden necessary to support higher education. Some might argue that this loan program

should incorporate a general subsidy because higher education benefits society, but eventually such a subsidy would imply a redistribution of income from those who do not go to college to those who do. Another issue is the fairness and the feasibility of requiring high-wage earners to subsidize the education of people who earn less or nothing at all (people who have dropped out of the labor market to raise children, for example). The structure of the income-contingent loan program creates incentives that might undermine its financial integrity. On the one hand, the program's flexibility allows people to substitute loans for personal and family contributions, implicitly lowering the price of higher education. Thus, the income-contingent loan program might encourage marginal students--those not likely to do well in school and earn higher incomes later--to pursue more education. At the same time, the program gives students expecting to earn high incomes a reason to forego participation since they may have to subsidize others. This result could undermine the financial basis for the loan program.

Children's Trust Fund. This proposal would gradually increase the payroll tax by three-tenths of 1 percent over 5 years and dedicate the money to children's needs. The tax would yield $20 billion in new revenues in the fifth year after enactment, according to estimates by Jule Sugarman, who introduced the idea (Sugarman, 1988: 2). The motivation for the plan is as political as it is substantive. Federal assistance to children declined by 4 percent in real terms between 1978 and 1987 (Committee on Ways and Means, 1989; 1231-1233), even as the poverty rate for children increased by 25 percent. Sugarman's plan, in effect, would earmark revenues for children in order to push their needs toward the front of the budgetary queue (Sugarman, 1988: 5-7).[20]

The Children's Trust Fund would increase public investment in children by 80 percent, providing that spending on children from general revenues was maintained. The proposal would also help equalize resources and opportunities for children, who are now the poorest age group in society. Nevertheless, proposals like the Children's Trust might simply intensify the conflict among interest groups for separate financing sources, particularly since this plan loosens the connection between payment of the payroll tax and entitlement to benefits. The paradoxical result could be less money for discretionary programs, like those meeting the needs of children, as more revenues are linked with particular programs. It is not unreasonable to expect that other claims--particularly those of the elderly for long-term care--will receive priority for additional payroll tax revenues because there is a clear connection between taxes paid throughout one's working life and an entitlement to benefits when one is elderly.

Obviously, the merits of earmarked taxes for human capital investments must be evaluated on a case-by-case basis. The basic mechanics of each plan are critical, as shown in the income-contingent student loan example. Each tax also has different distributional and economic impacts. But some common themes emerge from the discussion above. Earmarked taxes may be a useful element in a financing strategy for human resource programs because these programs should increase productivity and earnings, allowing people to repay society for the assistance they receive. This principle is most clearly embedded in the Reischauer student loan plan. However, in the same vein, one could argue that everyone benefits from education as a child and should have a responsibility to "pay back" the societal investments in their future through an earnings-related payroll tax dedicated to children. Alternatively, people can be asked to

accumulate money for such investments in advance. This approach which is illustrated by the individual training accounts, can only work for adult training programs. Despite some obvious benefits, earmarked taxes must be judged with great care because they limit lawmakers' flexibility and protect programs from tough budgetary decisions.

With those caveats in mind, we believe that earmarked financing will be most effective when the following conditions are met: (1) There should be a clear connection between the revenue source and the services provided to prevent people from shifting the costs of favored programs to others, thereby eroding discipline in the use of earmarked taxes and curtailing flexibility in the budget. (2) The class of people who bear the tax should be relatively able to pay; otherwise, the progressive tax system will be undermined. (3) The earmarked tax should produce sufficient revenue, or be combined with maintenance of effort rules, to assure that overall spending on the program to be funded will increase (Gold, Erickson, and Kissell, 1987: 27-28). (4) The revenue source should grow at a consistent and steady pace with the rest of the economy, preventing spending from fluctuating unpredictably.

Option 2: Mandating employers to provide benefits. One way to accomplish public purposes with little or no budgetary impact is to mandate that private employers provide their workers with certain benefits, such as a minimum wage, pension coverage, or child care. Such regulatory approaches became increasingly attractive in the 1980s as budget deficits precluded direct action to accomplish various objectives. Proposals to increase the minimum wage, to permit parents to take unpaid leave to care for a newborn infant, and to require employers to provide health insurance have been particularly popular. While many of these ideas were stalled by business opposition, in 1988

Massachusetts became the first state to guarantee health insurance to its residents by requiring that all employers with more than 5 workers provide coverage to all full-time employees or pay a tax used to finance care for the uninsured.

Although mandated benefit plans have not been used to finance investments in people, these policies could easily be applied to this area. The most likely extension of mandated benefits would be in the case of training, since employers already bear much of the responsibility for occupational skill development. A French program illustrates the use of employer mandates to increase training. French firms with more than 10 employees must devote 1.1 percent of their wage bill to allowable types of training, in addition to setting aside an additional .5 percent of payroll for apprenticeships. Those employers who do not provide training must pay a tax earmarked for government-sponsored training. This money can be used to train people who are unemployed or out of the labor market, and balances public and private control over the kinds of training provided. By mandating that workers' groups participate in the formulation of training plans, the French government also ensures that employees' needs are considered. One study has found that the French system has doubled the amount of money employers spend on training, as well as the percentage of workers who receive training (Bendick and Egan, 1987: 17-18).

From a societal perspective, one can justify a mandated training program on the ground that firms tend to underinvest in their employees because they cannot be sure that workers will stay with the firm. The government mandate can benefit all because businesses will be able to choose from a pool of more productive workers, while employees will have greater skills and command higher wages. Furthermore, employers can usually make better judgements than

individuals or governments about what kinds of training are needed. They also have the facilities and skilled personnel to provide many kinds of training more efficiently than other institutions.

Nevertheless, mandated benefits have their share of disadvantages. First, to the extent that additional training (or education or health care) is provided, it will not be costless. Although the added costs may at first reduce profits or be shifted to consumers in the form of higher prices, such expenses are likely to reduce workers' wages or other benefits in the long run.[21] While other financing mechanisms are also costly, in the case of mandated benefits the costs are so hidden that it is more difficult for lawmakers to decide if the benefits of the policy outweigh the costs. For example, estimates of the impact of minimum wage increases on employment and inflation vary widely (see for example Minimum Wage Study Commission, 1981); recent job loss projections associated with raising the minimum by $1.00 to $1.30 have ranged from less than 100,000 to almost 2 million.

Mandated benefit policies also bring with them a host of implementation difficulties that may be particularly pronounced in the case of human resource investments. There are so many different types of training that it will be difficult to set and enforce training guidelines for firms. These practical problems may create both inequities and inefficiencies. Firms that provide a lot of on-the-job, informal training may be penalized because those contributions to human resource development are difficult to measure. It will also be difficult to know whether firms have actually increased the amount of training they provide in response to a government mandate. Indeed, firms may simply direct their managers to repackage and relabel existing activity as

training, impeding efficiency while producing little in the way of new training.

One other inefficiency in the use of mandated benefits to finance human capital investments deserves mention. Because there are so many different skills that make people productive workers and responsible citizens, legislators are likely to impose mandates that focus on inputs (dollars spent on training) rather than on outputs (a certain number of workers trained in a particular skill), as in the French system described above. This design removes the incentives for firms to find the least expensive ways of fulfilling the mandate because they must devote a certain amount of resources to training regardless.

Option 3: State and local financing. Increased funding for human capital investment might come from state and local governments. As noted in Part 1, these levels of government increased their support for education by 40 percent in real terms between 1970 and 1986 and have become leaders in policy innovations during the 1980s. While the federal government has been running deficits, state and local governments have been balancing their books (49 states have constitutional amendments requiring them to balance their budgets). Finally, state and local governments have often found that raising taxes to finance human capital investments—particularly better education—increases the willingness of businesses to locate or remain within their borders.

However, the state and local fiscal situation is more complicated than this discussion would suggest. First, while the states and localities do appear able to increase their human resource investments, this capacity is limited. State and local governments have assumed more responsibility in a variety of areas such as economic development, health care, and corrections,

shrinking education as a portion of state and local budgets over the last 20 years. While their role has been expanding, state and local governments have seen some of their fiscal base erode due to federal policies. Federal aid as a percentage of state and local own-source revenue has declined from 27 percent of state and local outlays in 1978 to 18 percent in 1988 (Advisory Commission on Intergovernmental Relations, 1988: 35), while a larger share of the remaining aid (52 percent in 1988) is aid to individuals through programs like Medicaid and AFDC instead of aid to governments. Furthermore, the Tax Reform Act of 1986 increased the state and local tax burden by eliminating the federal tax deduction for sales taxes, which are a particularly important source (33 percent of the total in 1986) of revenues for states.[22]

As state and local governments enter the 1990s, their fiscal footing appears solid but not unshakeable. After having increased taxes in the early 1980s to maintain services during recession, state and local governments benefited from strong revenue growth during the economic expansion that began in 1983. But popular anti-tax sentiment forced lawmakers to return some of the accumulating surpluses to the voters, preventing state and local governments from creating the insurance funds they will need in an economic downturn. In 1989, after 7 uninterrupted years of economic growth, the year-end balances in state budgets were projected to be 3.5 percent of total expenditures, less than half the set-asides accumulated before the 1981-82 recession (National Association of State Budget Officers, 1989: 15). During the late 1980s, these budgetary balances have been consistently less than the 5 percent benchmark many experts consider necessary to protect states against recession.

In addition to fiscal pressures at the state level, areas differ widely in their ability and willingness to support government programs. According to the

Advisory Commission on Intergovernmental Relations, state and local expenditures per capita ranged from a relative value of 73 in Arkansas to 178 in Wyoming in 1986 as a percent of the U.S. average (Advisory Commission on Intergovernmental Relations, 1988: 44). A comparable index of state and local governments' tax effort (which relates the level of taxation to an index of fiscal capacity) ranged from 64 in Nevada to 156 in New York (Advisory Commission on Intergovernmental Relations, 1988: 92). Leaving the nation's human capital strategy to the fiscal and political vagaries of thousands of state and local governments may not ensure a coherent or adequate national policy.

C. Investing the Social Security Surplus in Human Resources: An Earmarked Financing Plan That Would Serve Broad Public Goals

Another way to fund human capital investments would be to use the growing surpluses in the existing Social Security (OASDI) Trust Fund for this purpose. The basic argument in favor of this proposal is that the retirement of the baby boom generation beginning in about 2015 will impose an enormous fiscal burden on the working-age population. However, if the nation can enlarge its economic base by improving productivity, this task will be less onerous. Earmarking part of the Social Security surplus for investments in people would be one way to increase productivity and ready the nation for the demographic challenges of the next century. This proposal might be the best alternative method of funding human capital investments during a time of tight budgets because the money would serve a broad national goal, could be used flexibly, and would distribute benefits widely. In these respects, the idea to dedicate Social Security surplus funds to human resource investments retains some of the benefits of the standard budget process described earlier.

The demographic challenge facing the nation when the baby boom generation retires during the next century is reasonably clear. By 2020, there are expected to be 50 percent more people over the age of 65 for every person between the ages of 20 and 64 than there were in 1980 (Committee on Ways and Means, 1989: 89). The fiscal implications of this development are harder to project, but one estimate is that maintaining current policies will require spending an extra 5 percent of GNP on the elderly population (Palmer in Sawhill, 1988: 183), if one includes Medicare costs as well as Social Security.

Between now and 2015 when these fiscal burdens materialize, the Social Security Trust Fund will build rapidly. The Social Security Amendments of 1983 instituted a series of OASI payroll tax increases that are being phased in until the year 2000, generating excess revenues for the Trust Fund. Furthermore, the baby boomers are entering their prime working years in the 1990s and will themselves have a relatively small cohort of retirees to support. As a result, annual social security surpluses are projected to rise from $40 billion in 1988 to a peak of $172 billion in 2010 (in 1988 dollars). While some believe this money can later be used to relieve the fiscal strains associated with the retirement of the baby boom generation, this belief rests on a fundamental misunderstanding of how the system operates. By law, the Social Security Trust Fund must invest its reserves in Treasury securities. The Treasury spends the money it receives from the Trust Fund, leaving it with paper IOUs. These securities will be redeemed on a large scale beginning in about 2030 when the annual Social Security surpluses turn into deficits. At that time, the government will have to repay large sums to the OASDI trust fund. To do so, it must either raise taxes, reduce other spending, or increase

its borrowing. One way or the other, the public will pay. That public is today's children and those who will be born during the next decade or two.

Currently, the government is doing little to prepare the nation for the challenge of supporting the retirement of the baby boom generation. The Social Security surpluses are presently being used to offset part of the deficit accumulating in the rest of the budget and are thus largely underwriting publicly-financed consumption. Many economists (for example, Aaron, Bosworth, and Burtless, 1989) argue that the government should not rely on these surpluses to finance its current expenses. A better use for the money would be to finance more public and private investment, thereby raising productivity and standards of living. (More public investment occurs when outlays for research, infrastructure, and human resource programs are increased. More private investment is accomplished by using budget surpluses to retire outstanding debt, thereby lowering interest rates and encouraging new investment in industrial capacity.)

Before the nation can make these investments, however, lawmakers must first make significant progress in reducing the current federal budget deficit. If the deficit were eliminated in accordance with the Gramm-Rudman-Hollings legislation by fiscal year 1993, the nation could then begin devoting some of the mounting annual Social Security surpluses to investment in both the public and private sectors. Even if the unified budget is balanced, the growth of entitlements will continue to squeeze out discretionary human resources programs, making some new funding source for these activities desirable. Table 2 illustrates this complex relationship between the Social Security surplus and the budget deficit and how that dynamic will change according to the deficit reduction timetable.

TABLE 2

SOCIAL SECURITY SURPLUSES AND THE BUDGET DEFICIT
UNDER THE GRAMM-RUDMAN-HOLLINGS TIMETABLE

1. 1990-1992:	Throughout this period, the Social Security surpluses will offset part of the deficit in the non-Social Security part of the budget. The Social Security surplus increases yearly, masking the shortfall in the rest of the budget.
2. 1993:	The unified budget must be balanced, which means that the Social Security surplus--projected at $103 billion that year (Congressional Budget Office, 1989: 46)--equals the deficit in the rest of the budget.
3. After 1993:	The Social Security surplus exceeds its 1993 level, growing annually to a high of $172 billion in 2010. Although much of the Social Security surplus is still financing the deficit in the government's other accounts, the annual growth in the surplus relative to its 1993 level creates a surplus in the unified budget--money which could be reserved for investment. One option is to use half of these new funds for human resource investment and the other half for private investment.

Reasonable people may disagree about whether it is more public or more private investment that will most further the goal of increasing future productivity. But suppose that one way to raise living standards in the future is to ensure that the next generation is healthier, better educated, and better able to generate and apply new knowledge to the production process. In this case, some of the Social Security surplus might be used to achieve these objectives. Education, training, drug abuse prevention, preventive health care, and nutrition programs would be obvious candidates for expansion. To complement these human resource investments, some of the surplus might also be used to retire federal debt, easing upward pressure on interest rates and encouraging more private investment in new industrial capacity.

One possibility would be to earmark equal shares of the Social Security surplus for additional public and private investment once the budget deficit is eliminated in 1993. Specifically, half of the increases in the annual Social Security surplus above its 1993 level (see Table 2) would be used to fund an increase in spending on qualified human resource programs; the other half of those annual increases would be used to retire government debt and make more room for private investment. Although some of the Social Security surplus would still be used to finance the deficit in the government's other program accounts, this contribution could be thought of as supporting the investment component of those other programs. According to the Office of Management and Budget, federal investment outlays for nondefense purposes totaled $73 billion in 1988 (Office of Management and Budget, 1989d: D-3). If these investment outlays grow with inflation, they will be roughly comparable to the Social Security Trust Fund's contribution to regular government outlays, which should be slightly over $100 billion in 1994. As a practical matter, this proposal

translates into establishing a new set of targets after 1993 for (a) the size of the surplus in the unified budget deficit and (b) the proportion of total federal outlays devoted to human resource programs.

Substantial sums would be available for investment if the Social Security surplus were allocated in this way beginning in 1994. The money earmarked for new human capital investments between 1994 and 2005 would total $264 billion (1989 dollars). This is an average of $22 billion per year--assuming current projections of the size of the surplus prove realistic and that the rest of the budget remains balanced after 1993.[23] This money would almost double the federal government's 1988 education and training spending of $26 billion. Comparable amounts would be available for private investment as the government accumulates an overall budget surplus during this period. The risk is not that there would be insufficient resources but that they would be spent unwisely. For this reason, Congress would need to specify what kinds of spending would qualify as a human capital investment and would have to resist political pressures to use a very broad definition. One option would be to require that the productivity-enhancing capacities of any new or existing program be independently and carefully evaluated before it could qualify for funding from the Social Security Trust Fund surplus. However, if money from the increasing Social Security surpluses is allocated wisely, it will generate large sums of money that can be used flexibly to fill a range of public investment needs. In its focus on a broad national goal--increasing productivity to raise living standards for the challenges of the next generation--this earmarked financing plan avoids the disadvantages of other dedicated taxes, which often serve narrow goals or target their benefits on a particular group.

CONCLUSION

The nation faces an impasse in human resources policy as it enters the 1990s. While Americans are increasingly recognizing the growing importance of human competencies to the economy and the larger society, particularly as more and more jobs require brains instead of brawn, policies are not keeping pace with these trends. Part of the problem is clearly financial: large federal budget deficits have held federal expenditures on education and training essentially constant since 1982, despite considerable concern during the 1980s that our policies were inadequate. State and local governments have steadily increased their investment in education. But burdened with other responsibilities as well, subnational governments devoted a lower share of their spending to education in 1986 than in 1970.

Clearly, more money cannot substitute for well-designed policies. Nor will every dollar devoted to human capital investment yield benefits. But if lawmakers draw upon decades of experience and evaluation research in designing education, training, preventive health care, and other human resource programs, the money may yield significant benefits. During the 1980s, public expenditures shifted away from human assets toward public consumption and physical assets. The pressing problems facing the nation as it enters the 1990s—the changing nature of work and the changing composition of the workforce, the rise of international economic competition, the increasing poverty of children, and the growth of an underclass in the nation's inner cities—suggest that some reorienting of spending priorities is in order. Using recent peaks in federal, state, and local human capital spending as one benchmark of what the nation should spend today, one can conclude that the

nation should devote as much as $33 billion more annually on investments in people.

In the next several years, it will be difficult for the government to raise anything like $33 billion annually for human capital investment. The persistent federal deficits--and the Gramm-Rudman-Hollings deficit reduction target of a balanced budget by 1993--constrain the growth of all federal programs, but this pressure may be greatest on domestic discretionary programs, including human resource programs. Prior orders of defense weaponry, the popularity of entitlement programs, and the growth of interest payments on the federal debt make cuts in these areas of the budget difficult or impossible, forcing policymakers to impose more restraint on education, training, and other domestic programs.

In principle, financing any program through a comprehensive, regular budget review--what we refer to as the "conventional" budget process--is the optimal method. If policymakers consider all the possible uses for tax dollars (and tax preferences), they will probably make better decisions than if they consider programs in isolation. However, because of the federal deficit, policymakers will probably not be able to increase funding for human capital investments through the conventional process at the national level. Instead, they are likely to consider alternate financing mechanisms to promote investment in people. We examined three of the most important alternative financing mechanisms: 1) earmarking taxes for human resource investments, 2) mandating that employers invest in the skills of their workers, and 3) relying on state and local governments to assume more of the burden for human capital investments.

While these alternative financing mechanisms may be of some use in financing human capital investment during a time of tight federal budgets, they also have a number of disadvantages.

Earmarked tax proposals—for example, setting aside payroll tax money to finance training—have considerable political appeal. Moreover, if people are more productive as a result of education and training, they may be able to repay society's investment in their well-being. But earmarked taxes must be used with care, because they create a sense of entitlement and can prevent money from being allocated to more productive uses as circumstances change. Earmarked taxes are also like turning a solid foundation into a jerry-built house: there is space for lots of different groups, but no overall design. Enacted through separate financing mechanisms, public policies may serve many special interests instead of broader national goals.

While earmarked taxes are like secondary generators relieving the strain on an overwhelmed power system, mandated benefit plans shift fiscal pressures to a different setting: to the private sector. For example, the government could require businesses to provide their employees with a certain amount of training—at no direct budgetary cost. Nevertheless, the nation would pay for this training in other ways that would be impossible to detect but no less real. Higher business costs would be passed on to consumers in the form of higher prices or to employees in the form of lower wages. Firms' ability to offer benefit packages more appealing to their employees would be curtailed. Finally, the types of training are so varied that a public mandate would probably have to require businesses to invest a certain sum in training (for example, a certain percentage of the wage bill), removing the incentive to provide training at the lowest cost.

Increased state and local financing of human resource investments does not necessarily involve the economic and budgetary distortions of earmarked tax or mandated benefits plans. But problems with coordination and control limit the utility of this approach. The nation's thousands of state and local governments each has a different willingness and capacity to support human resource investments. While these levels of government clearly have an important role to play, a federal role is probably necessary to impart coherence to the nation's human resource policies and to capture the benefits of human capital investment that spill across state and local lines.

While in the short-run lawmakers may want to use the three alternative financing mechanisms discussed above to provide money for human capital investment, the distinctive contribution of this paper is to put forth a more radical proposal—using some of the growing Social Security surpluses—to provide significant new resources for investment in people after 1993. While the Social Security surpluses accumulating between now and 2030 are designed to prepare the nation for the retirement of the very large baby boom generation beginning about 2015, these surpluses represent nothing but IOUs to the Social Security Trust Fund. The Trust Fund invests its surpluses in Treasury securities and will call in these notes during the next century when the baby boomers retire. Thus, the fiscal pressures associated with the retirement of the baby boom cohort have merely been deferred. To pay back its obligations to the Social Security Trust Fund after about 2030, when the annual Social Security surpluses vanish, the government will be forced to adopt painful measures—raising taxes, cutting spending, or both.

One way the nation can ready itself for this demographic and fiscal challenge is to enlarge its economic base by increasing productivity. If the

unified budget deficit is balanced in 1993 according to the Gramm-Rudman-Hollings targets, the growth in the Social Security surplus after 1993 can be used for investment that will raise living standards and make the nation more able to support rising Social Security outlays in the 21st century.

We propose that the annual growth in the Social Security surplus from its 1993 level be divided between public investments in human resources and private investment. This plan would generate substantial sums—an average of about $22 billion annually—for new human resource investment between 1994 and 2005. To make sure that the money is used wisely, Congress would have to set strict criteria for use of the funds. While this earmarked financing plan does restrict lawmakers' flexibility in using public funds, it has an important advantage over other earmarked tax proposals. The money can be allocated in a variety of ways to achieve the broad national goal of raising productivity and living standards, while also institutionalizing a national commitment to human capital investment.

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FOOTNOTES

1. The definition of human capital used in this chapter differs from other commonly used formulations. While many scholars use the term to include migration and the search for information, we do not treat those activities in our discussion here because migration and search involve changes in someone's external environment, not their personal capacities. However, we include non-economic capacities like the nurturance of children and contribution to one's community, whereas most researchers focus primarily on the economic implications of investment in human resources.

2. Student loans may be the best example of this market imperfection. Because loans for higher education do not involve a form of collateral, private credit markets in this area were underdeveloped, leading the government to create loan programs for students when it passed the Higher Education Act of 1965.

3. While there has been much debate over whether an underclass exists in the nation's inner cities and how to define it, several researchers with different perspectives on the issue have concluded that concentrated poverty and other problems in the inner cities are growing. See Bane and Jargowsky (1988), Gottschalk and Danziger (1987), or Ricketts and Mincy (1988).

4. This data is provided by the National Center for Education Statistics (1988: 31). However, these figures may slightly underestimate the public contribution to education because federal aid to students for higher education is classified under private tuition payments. Furthermore, the federal contribution to education through tax expenditures is not included in the data.

5. Many analysts have grappled with the particularly tough question whether public health care spending is a form of human capital investment. Kendrick (1976) and Eisner (1988) deal with this issue by classifying one-half of public health care dollars as human investment. However, we believe that most public health expenditures do not have the developmental effects embodied in the idea of human capital investment. For example, most federal public health dollars go toward acute care in hospitals or long-term care in nursing homes and institutions for the developmentally disabled.

6. Our data on federal spending on education and training comes from the Office of Management and Budget (1989a: 63-67).

7. The public service employment (PSE) that was a major part of CETA is not included in these calculations. If PSE were included under the category of job training, the drop in real funding would have been 57 percent between 1981 and 1989.

8. Federal investment in human capital has always been miniscule compared to GNP. In 1981, federal investment in education and training was .00000776 percent of GNP; by 1988, it had fallen to .00000474 percent.

9. Two publications which summarize state and local government experiments in improving the education and care of the young are the Committee for Economic Development, Children in Need: Investment Strategies for the Educationally Disadvantaged (1987); and National Governors' Association, The First Sixty Months (1987).

10. These are the authors' calculations using data from the National Center for Education Statistics reprinted in editions of The Statistical Abstract of the United States.

11. This figure is based on data presented by the National Center for Education Statistics (1988: 10).

12. Our calculation of enrollment in higher education uses data from the National Center for Education Statistics (1988: 142), but treats three part-time students as the equivalent of one part-time student.

13. Authors' calculations using data from the National Center for Education Statistics reprinted in editions of the Statistical Abstract of the United States (for the data on education spending) and information from The Economic Report of the President, 1989, Table B-1, p. 308 (for the data on GNP).

14. This calculation is based on data presented in the Statistical Abstract of the United States, 1972 (p. 415) and 1989 (p. 272). There is some double-counting in these figures because a small share of state and local education expenditures comes from federal grants.

15. This calculation uses data presented by Bixby (1989: 34-35).

16. It is important to note that the federal government is providing additional funds (over $300 million in fiscal year 1989) for the preschool education of handicapped children. State and local governments must supplement this federal contribution, furthering the growth of preschool education programs at the state and local levels.

17. Even in these cases, one cannot assume that the programs are cost-effective in the aggregate. For example, people who benefit from programs building their skills and aptitudes may find it easier to obtain employment, but they may at the same time close off jobs to others. The issue, as in the case of general education, is whether the programs increase productivity and the general welfare or simply redistribute benefits among people without a net gain to society.

18. Calculations are based upon data provided in Congressional Budget Office, 1989: 66.

19. Authors' calculation using data in Center for Education Statistics, 1987: 222-223.

20. Interestingly enough, there are already Children's Trust Funds in most of the states. In 1984, 29 states dedicated money to the prevention of child

abuse and neglect (Gold, Erickson, and Kissell, 1987: 24). However, the funds, which are often underwritten by marriage license fees or voluntary income tax checkoffs, are quite small; almost all took in less than $1 million in 1984.

21. One important complication is the case of workers earning the minimum wage. It is not possible to reduce their wages so the final effect in this case is usually fewer employment opportunities for such workers.

22. Information on sales tax revenues is calculated from data provided in Advisory Commission on Intergovernmental Relations, 1988: 60-61.

23. Authors' calculations using "Alternative II-B", 1989 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds (April 1989).